

## Federal Aviation Administration, DOT

## § 29.1199

zones, other than tail surfaces not subject to heat, flames, or sparks emanating from a designated fire zone or engine compartment, must be at least fire resistant.

[Amdt. 29-3, 33 FR 970, Jan. 26, 1968]

### § 29.1195 Fire extinguishing systems.

(a) Each turbine engine powered rotorcraft and Category A reciprocating engine powered rotorcraft, and each Category B reciprocating engine powered rotorcraft with engines of more than 1,500 cubic inches must have a fire extinguishing system for the designated fire zones. The fire extinguishing system for a powerplant must be able to simultaneously protect all zones of the powerplant compartment for which protection is provided.

(b) For multiengine powered rotorcraft, the fire extinguishing system, the quantity of extinguishing agent, and the rate of discharge must—

(1) For each auxiliary power unit and combustion equipment, provide at least one adequate discharge; and

(2) For each other designated fire zone, provide two adequate discharges.

(c) For single engine rotorcraft, the quantity of extinguishing agent and the rate of discharge must provide at least one adequate discharge for the engine compartment.

(d) It must be shown by either actual or simulated flight tests that under critical airflow conditions in flight the discharge of the extinguishing agent in each designated fire zone will provide an agent concentration capable of extinguishing fires in that zone and of minimizing the probability of reignition.

(Secs. 313(a), 601, 603, 604, Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, 1423, 1424), sec. 6(c), Dept. of Transportation Act (49 U.S.C. 1655(c)))

[Doc. No. 5084, 29 FR 16150, Dec. 3, 1964, as amended by Amdt. 29-3, 33 FR 970, Jan. 26, 1968; Amdt. 29-13, 42 FR 15047, Mar. 17, 1977; Amdt. 29-17, 43 FR 50602, Oct. 30, 1978]

### § 29.1197 Fire extinguishing agents.

(a) Fire extinguishing agents must—

(1) Be capable of extinguishing flames emanating from any burning of fluids or other combustible materials

in the area protected by the fire extinguishing system; and

(2) Have thermal stability over the temperature range likely to be experienced in the compartment in which they are stored.

(b) If any toxic extinguishing agent is used, it must be shown by test that entry of harmful concentrations of fluid or fluid vapors into any personnel compartment (due to leakage during normal operation of the rotorcraft, or discharge on the ground or in flight) is prevented, even though a defect may exist in the extinguishing system.

(Secs. 313(a), 601, and 603, 72 Stat. 759, 775, 49 U.S.C. 1354(a), 1421, and 1423; sec. 6(c), 49 U.S.C. 1655(c))

[Doc. No. 5084, 29 FR 16150, Dec. 3, 1964, as amended by Amdt. 29-12, 41 FR 55473, Dec. 20, 1976; Amdt. 29-13, 42 FR 15047, Mar. 17, 1977]

### § 29.1199 Extinguishing agent containers.

(a) Each extinguishing agent container must have a pressure relief to prevent bursting of the container by excessive internal pressures.

(b) The discharge end of each discharge line from a pressure relief connection must be located so that discharge of the fire extinguishing agent would not damage the rotorcraft. The line must also be located or protected to prevent clogging caused by ice or other foreign matter.

(c) There must be a means for each fire extinguishing agent container to indicate that the container has discharged or that the charging pressure is below the established minimum necessary for proper functioning.

(d) The temperature of each container must be maintained, under intended operating conditions, to prevent the pressure in the container from—

(1) Falling below that necessary to provide an adequate rate of discharge; or

(2) Rising high enough to cause premature discharge.

(Secs. 313(a), 601, and 603, 72 Stat. 759, 775, 49 U.S.C. 1354(a), 1421, and 1423; sec. 6(c), 49 U.S.C. 1655 (c))

[Doc. No. 5084, 29 FR 16150, Dec. 3, 1964, as amended by Amdt. 29-13, 42 FR 15047, Mar. 17, 1977]